

1. Do the below programs in anonymous function & IIFE

a. Print odd numbers in an array

```
let num = [2, 10, 5, 9, 11, 15, 20]
var val = function(){
  for(i=0; i<num.length; i++){
    if(num[i]%2 !==0) {
      console.log(num[i])
    }
  }
}
val()
```

//Print odd numbers in an array IIFE function

```
(function(){
  let num = [2, 10, 5, 9, 11, 15, 20]
  for(i=0; i<num.length; i++){
    if(num[i]%2 !==0) {
      console.log(num[i])
    }
  }
})()
```

b. Convert all the strings to title caps in a string array

c. Sum of all numbers in an array

```

let marks = [70,40,60,90,45]
let sum1 = function(){
  let sum = 0
  function printMarks(marks){
    sum = sum + marks  }
  marks.forEach(printMarks)
  console.log(sum);
}
sum1()

```

```

//Sum of all numbers in an array IIFE function
( function(){
  let marks = [70,40,60,90,45]
  let sum = 0
  function printMarks(marks){
    sum = sum + marks  }
  marks.forEach(printMarks)
  console.log(sum);
})();

```

D.Return all the prime numbers in an array

```

const numbers = [1, 5, 8, 10, 11, 27, 31, 51];
const prime = function(){
const isPrime = num => {
  for (let i = 2; i < num; i++) {
    if (num % i === 0) return false;
  }
  return num !== 1;
};

const primeNumbers = numbers.filter(isPrime);
console.log(primeNumbers);
}
prime()

```

```

//Return all the prime numbers in an array IIFE function
(function(){
  const numbers = [1, 5, 8, 10, 11, 27, 31, 51];
  const isPrime = num => {
    for (let i = 2; i < num; i++) {

```

```

    if (num % i === 0) return false;
  }
  return num !== 1;
};

const primeNumbers = numbers.filter(isPrime);
console.log(primeNumbers);
})();

```

E.Return all the palindromes in an array

```

var words = ["121", "guvi", "ITI"]
var isPalindromes = function(){
  var palindromes = words => words.filter((word) =>
    word.split("").reverse().join("") === word);

  console.log(palindromes(words));
}
isPalindromes()

```

//Return all the palindromes in an array IIFE function

```

(function(){
  var words = ["121", "guvi", "ITI"]
  var palindromes = words => words.filter((word) =>
    word.split("").reverse().join("") === word);

  console.log(palindromes(words));

})();

```

F.Return median of two sorted arrays of same size

G.Remove duplicates from an array

```

let words = [1,2,"ajith",1,"guvi",2,5,10,5,1]
let unique = function(){

  let unique1 = [...new Set(words)]

```

```
console.log(unique1)
}
unique()
```

```
//Remove duplicates from an array IIFE function
(function(){
let words = [1,2,"ajith",1,"guvi",2,5,10,5,1]
let unique1 = [...new Set(words)]
console.log(unique1)
})();
```

H.Rotate an array by k times

2.Do the below programs in arrow functions

a. Print odd numbers in an array

```
var numbers = [1,2,3,4,5]

//regular function
es5_square = numbers.map(function(number){
    return number*number
})
// arrow function
es6_square = numbers.map((number)=>{return number*number})

console.log(es5_square)
console.log(es6_square)
```

b.Convert all the strings to title caps in a string array

```
function titleCase(str) {
```

```

    return str
      .split(' ')
      .map((word) => word[0].toUpperCase() +
word.slice(1).toLowerCase())
      .join(' ');
  }
  console.log(titleCase("I'm a little tea pot"));

```

C.Sum of all numbers in an array

```
[1, 2, 3, 4].reduce((a, b) => a + b, 0)
```

```
arr.reduce(callback( accumulator, currentValue[, index[, array]] ),[,
initialValue])
```

D.Return all the prime numbers in an array

```

const newArray = [1, 3, 2, 5, 10];
const isPrime = num => {
  for (let i = 2; i < num; i++) {
    if (num % i === 0) return false;
  }
  return num !== 1;
};

```

E.Return all the palindromes in an array

```

const myPrimeArray = newArray.filter(element => isPrime(element));
console.log(myPrimeArray);

```

```

const getAllPalindromes = function (words) {
  return words.filter(function (word) {
    return word.split("").reverse().join("") === word;
  });
};

```

```
};
```

```
console.log(getAllPalindromes(["hello", "noon"]));
```